THE FINANCIAL PERFORMANCE OF CO-OPERATIVES IN KEDAH STATE WITH RELATION TO INDUSTRY AND SIZE

by

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ABSTRACT

This study is designed to investigate the performance of co-operatives in Kedah State in relation to industry and size to enhance the understanding of the current co-operative movements. Data has been gathered from co-operatives annual report for the year 2001 and 2002 for nine (9) different industries. The four primary measurements used to evaluate co-operative performance are liquidity, leverage, activity and profitability. The result shows that the performance of co-operative varies across industries. The difference in performance for certain industries as compared to other industries is probably due to lack of management control or their benefits' distribution policy. This study used two (2) different size measurements to test significant difference in performance measurement among co-operatives. Overall, it shows that the bigger size of co-operative having lower liquidity for both size measurements. Focusing on other performance measurement, there is no consistent result for different size measurement. However, the result probably highlighted that although bigger co-operatives improve their efficiency through economy of scale, the higher efficiency of assets utilization does not translate into higher profitability. The results of this study provide some insights to regulators towards implementation of the effective strategies in order to enhance co-operative performance.

Keywords: Co-operative and financial performance.

OVERVIEW

1.1 INTRODUCTION

The co-operative movement in Malaysia since 1990 to 2000 has recorded an average growth rate in terms of the number of co-operatives, membership, share capital/subscription and assets of 3.2%, 4.4%, 10.6% and 12.2% respectively (National Co-operative Policy (Dasar Koperasi Negara (DKN)), 2004). As of June 30, 2004, there were 4,553 co-operatives under supervision of Co-operative Development Department (Jabatan Pembangunan Koperasi (JPK)) with a membership of 5.39 million and total assets of RM25.7 billion (JPK website, 2004). The above figures show that co-operatives are able to play an important economic role in Malaysia. In fact, on 29 January 2004 Prime Minister Dato' Seri Abdullah Ahmad Badawi had launched the DKN for the development of co-operatives in Malaysia. Such policy provides a conducive environmental framework to transform co-operatives into institutions that capable of assisting in the economic growth and social development thereby contributing directly to national development.

Co-operatives are a form of collective action in which individuals join together to accomplish what would be more costly or impossible to achieve individually (Zusman, 1988). In other words, the basic formulation of co-operative is to help their members to achieve their goals. However, there are few problems and issues faced by Malaysian co-operatives as highlighted in DKN, 2004. The issues highlighted are financial and liquidity problems, bad corporate governance practice and non-compliance of co-operatives rules and regulation.

One of the major issues is related to conventional co-operatives sources of capital such as share capital, subscription and accumulated income. In Malaysia, the majority of co-operatives have small capital, inactive members and poor networking (DKN, 2004). Due to the drawbacks, co-operatives are unable to generate sufficient capital to finance profitable investment opportunities. In addition to that, co-operative surplus funds are not utilized economically but channeled to financial institutions in the form of fixed deposits (DKN, 2004). As a result, co-operative businesses remain as conventional and concentrate on low scale activities, which eventually loose out to competition and development. Consequently, co-operatives are unable to provide better services to their members and to participate in activities that will benefit the nation's economy.

As to date, JPK is the main agency that is responsible to register and monitor the co-operative activities. In order to overcome the problems highlighted above, the greater function of JPK is needed. Aware of this situation, government has approved an establishment of Co-operative Commission of Malaysia (Suruhanjaya Koperasi Malaysia (SKM)) to enhance the co-operative movements and reputation in Malaysia.

The formulation of DKN and establishment of Co-operative Commission of Malaysia in co-operative movements stimulate an interesting topic to be explored. Therefore, this study will explore the performance of co-operatives with relation to industry and size, specifically in Kedah State. The performance is measured by liquidity, leverage, activity and profitability.

1.1 Objective of The Study

This study is designed to investigate the performance of co-operatives in Kedah with relation to industry and size.

1.2 Significance of the study

The long term objectives of DKN are is to transform the co-operative movement into a vehicle that is competitive, and geared towards elimination of poverty, creation of employment and business opportunities and upgrading the quality of life for national development in line with vision 2020. In order to be more competitive in the future, there is a need to understand the strengths and weaknesses of the co-operative by referring to their current performance. Performance measurement such as liquidity, leverage, activity and profitability ratio will provide quantifiable measure in identifying the degree of co-operative performance. Therefore, the result of this study will enhance the understanding of the current co-operatives movement. It will also guide the regulators towards implementation of the effective strategies in order to achieve the above objectives. Indirectly, the co-operatives can also be more competitive in future and capable of contributing towards economic growth and social development in Malaysia.

LITERATURE REVIEW

2.1 Co-operatives Background

The 1995 Manchester Declaration on the ICA Co-operative Identity Statement (ICIS) has defined co-operative as an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise. The underlying concept of co-operatives is ownership and control by members with and for whom co-operatives conduct their operations. A co-operative is an organization formed and owned by a group of individuals for the purpose of improving their economic standard of living and social services rendered (DKN, 2004). Co-operatives are viewed as being fundamentally different from investor owned-firms because of the fact that the co-operative's owners are also its customers or suppliers of the co-operative (or both) (Oijen and Hendrikse, 2002). For example, in agriculture, farmers have formed co-operatives that buy, process and sell back their product to its members and also other customers.

Co-operatives have members, who have rights to the assets but the rights are difficult to transfer from one member to another (Oijen and Hendrikse, 2002). The co-operative's members are usually its patrons. Generally, they will allocate revenues in access of costs from their activities on a patronage basis, after provided supplies or other services or performed marketing functions for their patrons and allocation of earning must be made on an equitable basis (Ling, 1997). The ultimate aim is to provide a good alternative to society in terms of quality goods and services rendered at a reasonable price (DKN, 2004). This unique feature facilitates co-operatives in undertaking activities towards improving members' level of income or reducing their cost of living. Study done by Nordin, I. (2000) highlighted that Malaysian society had gained much from the economic growth of co-operatives in terms of increased income and standard of living and have successfully reduced poverty rate in the country. The other study (Hassan, 1995) shows that the formation of co-operatives in Malaysia by land's entrepreneur are able to reduce the percentage of land's entrepreneur with low income and to overcome the imbalance in income distribution among the land's entrepreneur.

2.2 Development of Co-operatives in Malaysia

The formation of co-operatives in Malaysia in the early 1900s is to assist in overcoming the problem of exploitation of the rural people by middlemen and indebtedness among government servants (DKN, 2004). The first thrift and loan co-operative was registered on July 21, 1922 under the Co-operative Societies Enactment 1922 (which has since been repealed) and replaced by the Co-operative Act 1993 that is in force today. This Act has been utilized as a general guideline whereby co-operatives have been using it as a 'policy' in streamlining their operations.

There are two (2) different ministries that are responsible for co-operative development in Malaysia. The Ministry of Agriculture is responsible for the development of agro-based co-operatives under the supervision of Farmers Organisation Authority (LPP) and fisheries based co-operatives under the supervision of Fisheries Development Board of Malaysia (LKIM) whereas the Ministry of Enterpreneur and Co-operative Development is responsible for the development of non-agro based co-operatives and non-fisheries based co-operatives under the Co-operative Development Department (JPK). All co-operatives are subjected to the Co-operative Act 1993. Co-operatives under the supervision of JPK comprise of credit, construction, transportation, consumer (including schools), industrial, services, plantation and housing co-operatives. The National Co-operative Organization of Malaysia (ANGKASA) is recognized as the apex body representing the co-operative movement of Malaysia both at the national and international levels (DKN, 2004).

The major co-operatives in Malaysia are under supervision of JPK. There are 4,330 co-operatives registered with JPK in year 2002 with 5.02 million members; RM4,403.6 million share/subscription and RM19,047 million assets. The numbers of co-operatives according to industry (by function) are as follows:

TYPES	TOTAL	PERCENTAGE (%)
Finance	454	10.5
Services	425	9.9
Consumer	2,526	58.3
Plantation	243	5.6
Transport	428	9.9
Construction	107	2.5
Industries	48	1.1
Housing	99	2.3
Total	4,330	100

Source:DKN, 2004

Majority of co-operatives are consumer function based (58.3%). Out of the total number of co-operatives, 8% had registered in Kedah State. Most of them are consumer co-operatives (55%), followed by services (12%), finance (11%), plantation (8%), construction (7%), transport (5%), housing (1%) and industries (1%) (www.govt.jpk.kedah.com.).

The number of co-operatives under supervision of LPP is 549 with 92,791 members; RM25 million shares/subscription and RM158 million assets. The number of co-operatives under supervision of LKIM is 34 with 12,814 membership; 3.6 million shares/subscription and RM21 million assets.

2.3 The Performance Measurement

An important aspect of co-operatives' ability to form, compete, attract capital, and provide services to their members is their financial and operating performance (Harris and Fulton, 1996). Comparative performance data provides critical benchmark for specific co-operatives and highlights the co-operative sector's strengths and weaknesses, which are useful in advertising the benefits of co-operatives to new members and the general public, and in encouraging new co-operative businesses to form (Harris and Fulton, 1996). Performance can be measured by financial and non-financial measurements. The common financial performance measures are through financial statements and ratios. Previous literatures provide various ideas for formulating financial analysis methods for corporate evaluation (Edum, Price and Thorpe, 1996). Of these approaches, ratio analysis has received the most attention in determining how performance of one firm relates to the performance of either a group of peers or the entire industry (Ting and Morris, 2001).

Ratio analysis incorporates several groups of independent ratio figures from standard financial reports, such as liquidity ratios, leverage ratios, turnover ratios, profitability ratios and market value ratios (Ross, Westerfield and Jordan, 1995). This approach allows rapid assessment of the financial health and insolvency potential of a firm (Ting and Morris, 2001).

Previous research on co-operative performance also used the financial ratios analysis as a standard technique of performance evaluation (Babb and Lang 1985; Chen, Babb and Schrader, 1985; Parliament, Lerman, and Fulton, 1989; Schrader, Babb, Boynton and Lang, 1985). Financial ratios reflect the effect of strategic decisions and should reveal any differences exist among co-operatives on different size and industry categories (Lerman and Parliament, 1989). The similar measurement tools have been used by the United States Development of Agricultural (USDA) Rural Business Co-operative Services in evaluating co-operative performance in the United States. The four primary measurements used as a tool to evaluate co-operative performance are liquidity, leverage, activity and profitability (Chesnick, 1998).

a. Liquidity

This analysis is of special interest to short term creditors. The use of this measurement is to measure the ability of a business to pay its current liabilities. An analysis of a firm current position normally includes determining the working capital, the current ratio and the quick ratio. Working capital is the excess of current assets over current liabilities. Amount of working capital can be used to compare the firm liquidity between the periods. However, it is difficult to assess the firm liquidity if compared to other firms of different sizes. So, current ratio is useful in comparing the liquidity of different firms as it shows the relationship between current assets and current liabilities. It is derived by dividing the total current assets by the total current liabilities. This ratio is also more reliable indicator of solvency than is working capital (Warren, Reeve, Fess 1999). The current and quick ratios are most useful when analyzed together for comparison purposes over period and firm in the industry (Chesnick, 1998; Lerman and Parliament, 1989; Warren, Reeve and Fess 1999).

b. Leverage

Leverage is related to the risk. Risk associated with financing and the co-operatives ability to meet its long-term and short-term obligations. The goal is to borrow funds at a lower interest rate and invest in business activity that produces a high return. Lower level of member investment may cause co-operative to be more highly leverage. Previous research (Chesnick, 1998) used debt to asset, debt to equity and time interest earned in determining leverage. Debts to asset represent the assets claimed by outside interest whereas; debts to equity provide a useful comparison of co-operative types of financing. Time interest earned primarily used to

look at interest payments and determine whether the co-operative has enough net income to cover those payments (Warren *et al.*, 1999).

c. Activity

Activity ratios describe the efficiency with which the co-operative uses its assets (Warren *et al.*, 1999). It shows how much revenue is generated by each dollar invested in the co-operatives assets. The higher the ratio, the more efficient the assets are used. Previous research (Chesnick, 1998) used local assets turnover and fixed assets turnover to represent the activity ratios.

d. Profitability

The fundamental goal of a business is to earn profit, but co-operatives often have other objectives. Their profitability ratios may be lower than for investor-owned firms. However, the use of this measurement will show comparison of the performance among co-operatives. Profitability analysis focuses primarily on the relationship between operating results as reported in the income statements and resources available to the business as reported in the balance sheet. The four profitability ratios include gross margin, net operating margins, return on total assets and return on members' equity (Chesnick, 1998, Warren *et al.*, 1999).

2.3.1 Performance of co-operatives with relation to size

Study done by Lerman and Parliament (1989) on the significant size effects observed between large and small co-operatives over the periods of 1970-1987, found that the median efficiency of asset utilization was significantly higher for the large co-operatives while the median liquidity measure was significantly higher for the small co-operatives. The median return on equity for the small co-operatives was significantly higher than that for the large co-operatives. On the other hand, the median leverage was not found to be significantly different for small and large co-operatives. The findings of that research indicated that although larger co-operatives improve their efficiency through economy of scale, the higher efficiency of assets utilization does not translate into higher profitability.

In Malaysia, Nordin, I. (2000) highlighted that the liquidity ratio for small, medium and large co-operatives in 1996 were at 75 percent, 53 percent and 30 percent respectively. Small co-operatives were financed mainly by their own capital while medium and large co-operatives with large loans. Focusing on profit before tax per worker, the cost per worker is high, especially for medium co-operatives.

2.3.2 Performance of co-operatives with relation industry

Study done by Lerman and Parliament (1989) found that the co-operatives performance varies for all median financial ratios.

In Malaysia case study on six (6) co-operatives done by Hamid and Ibrahim (1989) on enhancement of consumer co-operatives performance found that the location factor, general appearance of the store and effective pricing are the major factors contributed towards the difference in the performance of the co-operatives. That study found that the higher net profit margin is due to high mark-ups and lower operating cost per dollar sales. It also highlighted that mark-up price strategies should be pursued by co-operatives to balance between profit and service. The result shown that period with highest operating profit is associated with very high mark-ups. On the other hand, periods with moderately low mark-ups are associated with high total cost of goods sold and modest gross profit. Thus, they suggest that the strategy of instituting moderately low mark-ups seems to be more appropriate. They also found that co-operative in rural area facing the problem such as lack of knowledge and expertise, lack of attractively-termed supplies and limited capital to expand their co-operative functions.

Report prepared by JPK (1995) on establishment of consumer co-operative consortium has provided the financial analysis of 41 selected co-operatives throughout Malaysia. Overall, the report shows that consumer co-operative have strong liquidity ratio, stable in profitability ratios but lower in inventory turnover. They also do not use outside loan to finance their activities. They are assumed to perform in their activities if they distributed dividend to their members. Research done on problems faced by the Consumer co-operative movement of Malaysia in 1989 also found that consumer co-operatives maintained positive liquidity ratio (Wijesinha, S.G. (1991)). It indicated that the current assets were more than current liabilities by many times.

Report by JPK (1997) on performance of school co-operative movement up to 1996 found that there is a positive value in liquidity ratio and profitability ratio for active school co-operatives. It highlighted that an active school co-operatives were able to generate profit and manage their current liabilities. Another report by Wijesinha, S.G. in 1991 also found that school co-operatives had generated profit as 87% of them ran at profit in 1989. Focusing on stock turnover rate, that study highlighted that it may be possible that school co-operatives did not give sufficient attention to inventory turnover management as 17% of co-operatives had an inventory holding of more than 6 months inventory.

Another report by JPK (1995) discussed the determination of housing co-operatives performance. It highlighted that financial problem is among the common problems faced by housing co-operatives such as higher interest

charged or difficulties in getting loan to finance their project. The other major problem is the ineffective project management. Normally management of co-operative projects is handled by people who are part timers or voluntarily official. Some of them are lack of technical knowledge and skills. Moreover, as part timer, they couldn't give full commitments in the projects. These will contribute to the delay of the projects. Employment of professional staff is needed by housing co-operatives to overcome this problem but it could not be done because of their limited funding.

Nordin, I. (2000) also highlighted in his study that there were problems with respect to manpower in the co-operative organization such as lack of skill personnel, difficulties in securing competence personnel, poor management, poor financial management, mismanagement and others. It was noted that more than 80 % of the co-operatives studied were lack of proper planning, clear short and long term objectives.

RESEARCH METHODOLOGY

3.1 Data collection

The population of this study is 321 co-operatives in Kedah state under supervision of JPK. The number of population is different from the statistics reported in the Co-operative Development Department web site (www.govt.jpk.com) as we ignored the repetition of similar co-operatives name. Based on convenience sampling, the first 30 co-operatives for each industry in the list provided by JPK have been chosen as a sample excluding those co-operatives that did not lodge the annual reports for year 2001 and 2002. We choose the latest reports that are available at JPK during data collection in early April 2004. Data has been gathered from co-operatives' annual reports for the year 2001 and 2002 since most of the co-operatives have not yet lodged their 2003 reports to JPK. The industry classification is based on JPK's classification according to their functions that are finance, consumer, services, plantation, construction, transport, housing and industrial. Noted that finance industry in this study is not similar with banking and financial sector for investor owned firm since there is no special regulation applied for that industry.

There are eight (8) different industries according to the classification. However, we found that the consumer type of industries can be categorised into two (2) types of co-operatives which are consumer (school) and other type of consumer. Consumer school was classified separately from other consumers since the special attention was also given by JPK and other previous researchers for this type of co-operative. Therefore, this study will focus on nine (9) different types of industries.

This study does not include the co-operatives which are under supervision of LPP and LKIM. We found that co-operatives registered with LPP do not directly involve with plantation as we expected as most co-operatives are involved in different nature of business such as finance, contract, rental, transportation, plantation and managing petrol pump. We excluded this type of co-operatives, since we cannot justify the type of industry that they are supposed to be classified. We also excluded the co-operatives under supervision of LKIM as we are unable to get the annual report to be reviewed.

3.2 Financial Measurement

The four primary measurements used to evaluate co-operative performance are liquidity, leverage, activity and profitability. The similar measurement tools had been used by USDA in evaluating co-operative performance in the United States (Chesnick, 1998). Two (2) common liquidity ratio used are current and quick ratio. The leverage ratio is presented by two (2) ratios that are debt to asset and debt to equity. Assets turnover is used to represent the activity ratios. The three (3) profitability ratios used include net-operating margins, return on total assets and return on member equity. The first ratio, net profit margins is calculated as the excess of revenues, above all the cost of goods sold, operating expenses and interest, which then will be divided by total revenue. The second profitability ratio is return on assets which is calculated by taking net income before tax and interest and divided by total assets. The last ratio is return on equity that is calculated by dividing the net margins after interest and taxes by total member equity.

3.3 Analysis

We conducted descriptive analysis on mean of several variables i.e. current and quick ratio, debt to asset, debt to equity, assets turnover, net-operating margins, return on total assets and return on member equity.

The mean financial ratios are analyzed by using the non-parametric correlation test: Spearmen's rho to identify correlation between size and industry with financial performance.

DISCUSSION AND FINDINGS

4.1 Descriptive Result

Table 1 shows the numbers of co-operatives selected as sample for each industry. The highest number of co-operatives selected is represented by Consumer (school) industry which is about 18.6% and the lowest is Industries and Housing industry, 1.2%. The percentage selected as a sample for each industry is different as we limit the number of co-operatives not exceeding 30 representatives for each industry using convenience sampling.

Table 1
Sample Distribution

Types of Industry	N		N		n/N
	N=161	%	N=327	%	%
Finance	26	16.1	35	10.9	74.3
Services	28	17.4	40	12.5	70.0
Consumer	28	17.4	60	18.7	46.7
Consumer (school)	30	18.6	117	36.4	25.6
Plantation	17	10.6	27	8.4	63.0
Transport	14	8.7	15	4.7	93.3
Construction	14	8.7	21	6.5	66.7
Industries	2	1.2	3	0.9	66.7
Housing	2	1.2	3	0.9	66.7
Total	161	100.0	321	100.00	50.2

Table 2 shows the means for each of performance measurement by different industries. Analysis on liquidity shows that the Industries and Services are the industries with highest mean current ratio (73.367 and 53.175 respectively) and quick ratio (71.02 and 52.33 respectively). Transport and construction, on the other hand, have the lowest mean current (6.97 and 7.68 respectively) and quick ratio (6.96 and 7.63 respectively). Based on the results, mean for current and quick ratios are varies among the industries.

Table 2
Means of performance measurement by Industry

	Liquidity		Leverage		Activity	Profitability		
Type Of Industry	Current Ratio	Quick Ratio	Debt/ Assets	Debt/ Equity	Net Sales/ @ Asset Turnover	Net Profit Margins	Return On Assets	Return On Equity
Finance	8.2138	8.1088	.2552	.3400	.2325	.3829	.0471	.0998
Services	53.1754	52.3355	.7673	.7387	.7624	.3260	.9054	.1189
Consumer	19.1652	18.4521	.3496	.7387	.7869	.3146	.1213	.3240
Consumer (school)	8.5892	4.883	.3622	.8017	1.3061	.4189	.2276	.3972
Plantation	13.6209	13.3509	.6671	1.4674	.9388	.1455	11.0471	.1469
Transport	6.9743	6.9600	.6082	9.1282	.6757	.3392	.0992	.8970
Construction	7.6825	7.6354	.4843	1.6332	2.0161	.1087	2.1293	.3870
Industries	73.3675	71.0225	.1150	.1450	.0650	.8650	2.5267	.1000
Housing	10.1250	10.1250	.9050	1.3875	.0225	.2600	.0100	.0100
Total	19.2578	26.2186	.4819	1.4476	.8843	.3184	1.8662	.2996

Analysis on leverage highlighted that Housing, Plantation and Transport industries are among industries that use a higher percentage of debt. In contrast, Finance and Industries are among industries that use a higher percentage of equity to finance co-operative operations.

Focusing on the activity performance, the mean asset turnover varies among the industries. The highest is Construction (2.01) and Consumer (1.306) industries and the lowest is Housing (0.02) and Industries (0.065).

Profitability ratio is referring to the three (3) categories of performance measurement. The first profitability ratio is net profit margin. Table 2 shows that Industries has the highest mean net profit margins (0.8650) while the Construction has the lowest mean net profit margins (0.1087). The other industries have between 0.2 to 0.4 mean net profit margins.

The second profitability ratio is return on assets. The highest return on assets is Plantation (11.047) whereas the lowest are Housing (0.1) and Finance (0.047).

The last ratio is return on equity. Transport (0.8) has highest mean returns to members' equity. On the other hand, Housing (0.01), Finance (0.099) and Industries (0.1) have lower mean returns to members' equity.

4.2 Correlations Analysis Result

4.2.1 Non Nonparametric Test (Spearmen's Rho) Based on Industry

Table 3 shows the results on nonparametric correlation by industry.

a. Liquidity

The correlation for current ratio performance measurement is significant at 0.01 level for Finance, Services, Consumer and Construction industries. The finding shows negative relationship for Finance and Construction industries whereas positive relationship for Services and Consumer industries. The results explain that the Finance and Construction industries are running at lower current ratio but the other two industries at higher current ratio. The difference in ratio direction is may be due to the nature of business. Finance and construction are in long term business cycle whereas the other two (2) industries are in short term business cycle. The management of current assets for co-operatives with short term business cycle can be done efficiently as compared to co-operatives with long term business cycle.

Table 3
Nonparametric Correlations (Test: Spearmen's rho) Based on Industry

Type Of Industry		Liquidity: Current Ratio	Liquidity: Quick Ratio	Leverage: Debt/ Asset	Leverage: Debt/ Equity	Activity: Net Sales/ @ Asset Turnover	Profitability: Net Profit Margin	Profitability: Return On Asset	Profitability: Return On Equity
Finance	CC	**-.184(**)**	**-.118(*)**	**-.297(**)**	**-.336(**)**	**-.280(**)**	**.140(*)**	**-.443(**)**	**-.376(**)**
	Sign	.001	.034	.000	.000	.000	.027	.000	.000
Services	CC	**.240(**)**	**.248(**)**	-.078	-.072	**-.192(**)**	.020	.038	**-.177(**)**
	Sign	.000	.000	.164	.207	.001	.752	.528	.005
Consumer	CC	**.215(**)**	**.234(**)**	-.064	-.031	-.073	.003	**-.222(**)**	.032
	Sign	.000	.000	.253	.589	.191	.961	.000	.612
Consumer (school)	CC	-.019	**-.220(**)**	-.036	-.012	**.278(**)**	.133(*)	.034	**.384(**)**
	Sign	.740	.000	.525	.827	.000	.036	.574	.000
Plantation	CC	-.112(*)	-.065	**.340(**)**	**.341(**)**	.131(*)	**-.202(**)**	**.461(**)**	-.082
	Sign	.045	.244	.000	.000	.020	.001	.000	.196
Transport	CC	-.120(*)	-.078	.128(*)	.037	.027	.035	**-.184(**)**	-.004
	Sign	.031	.161	.022	.513	.628	.580	.002	.953
Constructi on	CC	**-.155(**)**	-.099	.110(*)	**.177(**)**	**.282(**)**	**-.253(**)**	**.342(**)**	**.240(**)**
	Sign	.005	.075	.050	.002	.000	.000	.000	.000
Industrial	CC	.111(*)	.118(*)	-.124(*)	-.126(*)	-.123(*)	.144(*)	.068	-.021
	Sign	.046	.035	.026	.026	.028	.023	.264	.737
Housing	CC	.018	.033	**.162(**)**	.122(*)	**-.170(**)**	.011	-.096	-.102
	Sign	.750	.553	.004	.033	.002	.862	.114	.110

Notes: CC (Correlation Coefficient)
Sign (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Current ratio is very useful to be analyzed together with quick ratio to explain the liquidity of the business. In this study, the finding also shows that the correlation for quick ratio performance measurement is significant at 0.01 levels for both Service and Consumer industries in positive relationship. This finding highlighted that the co-operatives in Service and Consumer have more ability to pay its debt as they come due since they are more liquid. Focusing on consumer industry, the result is consistent with financial analysis report on establishment of consumer co-operative consortium by JPK, which stated that consumer co-operatives have strong liquidity ratios. On the other hand, the finding on the test of quick ratio shows significant at 0.05 levels for Finance but not significant for Construction industry. Focusing on Consumer (school) industry, the correlation for quick ratio is significant at 0.01 levels in negative relationship for but not

significant for current ratio. The lower quick ratio for this industry is probably due to more inventories kept by them.

The finding of this study also highlighted that the performance test on liquidity for services and consumer industries can either be done for current ratio or quick ratio as the same direction applied for that industries. On the other hand, the performance test on liquidity for other industries should be done for both ratios as both ratios show no significant results.

b. Leverage

This study has focused on debt to asset and debt to equity ratios to represent the leverage. Debt is the use of someone else's capital for a fixed cost. Thus if the fixed cost of the debt is lower than the returns those fund generate, the excess returns will accrue to the members. On the other hand, if revenues are less than the fixed cost of the debt, member equity will have to absorb the loss.

The first leverage ratio is debt to asset. The finding shows that the correlation is significant at 0.01 level for Finance, Plantation and Housing. Finance industry does not really rely on debt to finance their operation as the results shows negative relationships. On the other hand, the result of positive relationships shows that Plantation and Housing industries have a great reliance on debt.

The second leverage ratio is debt to equity. The result shows that the correlation is significant at 0.01 levels for debt to equity performance measurement for Finance, Plantation and Construction. Both Plantation and Construction industries are in positive relationship but Finance industry again shows negative relationship. The findings explain that the Plantation and Construction industries have maintained higher debt as compared to equity but not for Finance industry.

Based on both leverage performance indicator, it shows that finance industry probably less prone to bankruptcy risk. On the other hand, Plantation industry is probably more prone to bankruptcy risk.

The finding of this study also highlighted that the performance test on Leverage can either be done for at least debt to assets or debt to equity as both ratios provide consistent results for each of the industry tested.

c. Activity

Analysis on activity ratio describes the efficiency with which the co-operative uses its assets. A higher ratio can be translated to more efficient usage of the assets. In this study, the non parametric test on assets turnover shows that there are significant relationships at 0.01 levels for Finance, Services, Consumer, Construction and Housing industries. Finance, Services and Housing industries are in negative relationship whereas the other two (2) industries are in positive relationship. This suggests that Finance, Services and Housing industries generate lower sales to asset. On the other hand, both Consumer and Construction industries generate higher sales to assets. Higher or lower sales turnover is probably due to the periods with higher or lower mark-ups strategy. This scenario has been highlighted by Hamid and Ibrahim (1989) on Consumer industry. Alternatively, the higher or lower sales turnover for certain industries is probably due to ineffective management. The issue of ineffective management of the co-operatives has been highlighted in the report on determination of Housing performance by JPK in 1995.

d. Profitability

Profitability analysis will explain the relationship between operating results as reported in the income statement and the resources available to the business in the balance sheet. So, it will measure the income or operating success of an enterprise for a given period of time. The first ratio is net profit margin which measures the percentage of each dollar of sales that result in net income. The findings show that the correlation is significant at 0.01 level for net profit margin for both Plantation and Construction industries in negative relationships. It explained that both industries are running their operation at lower net profit margin. The lower net profit margin probably can be referred to the lack of business organization in managing their resources such as unable to get the competitive price for the merchandise/raw materials purchase, higher administrative expenses and sales at lower price. We could not explain the reason of why those industries experienced the lower net profit margin. However, the similar characteristic of Plantation and Construction is having the long term business cycle probably can explain the scenario. In completing their business cycle, the management probably found difficulties in fixing the sales contract price as they have to consider the long term effects of the transaction such as time value of money. Alternatively, the management might also find

difficulties in managing their resources for certain period of time for both industries.

The second profitability ratio is return on assets. The finding shows that the correlation is significant at 0.01 levels for Finance, Consumer, Plantation, Transportation and Construction. Finance, Consumer and Transportation industries have negative relationships but the other two (2) are in positive relationship. It shows that Finance, Consumer and Transportation industries are running their business at lower return on assets whereas Plantation and Construction industries are getting higher return on assets.

The third profitability ratio is an analysis of return on equity which measures profitability from the member viewpoint. It shows the percentage of net income earned for each dollar invested by the owners. The findings show that there are significant relationships at 0.01 levels for Finance, Services, Consumer and Construction industries. Both Finance and Services are in negative relationships but the other industries are in positive relationships. It explained that both Finance and Services are getting lower return on equity while both Consumer and Construction are getting higher return on equity.

As mentioned earlier, the fundamental goal of the co-operatives organization often have other objectives rather than to earn the higher profit. So, different co-operatives have different approach while providing/ distributing the benefits to the members. The lower return might be due to low mark-up strategy. In this case, the related industries probably give the benefits to their members based on the level of consumption on the services provided. On the other hand, the co-operatives with higher return probably have an intention to provide benefits through higher dividend distribution. However, higher or lower return is not necessarily depending on the lower or higher sales price. It is also might due to the lack of management of resources as mentioned earlier.

The finding of this study also highlighted that the performance test on profitability should be done for net profit margin, return on asset and return on equity as all ratios show inconsistent results for each of the industry tested.

Overall, this study found that the performance of co-operatives are varies across industries. Previous study done by Lermant and Parliament (1989) also found that the industries effect varies for all median financial ratios.

Finance industry has run the business on low liquidity ratio, less reliance on debt to finance the activities, generating low sales to assets and providing low return on assets and return on equity. This scenario shows that the main sources of capital for Finance industry were source internally such as from shares capital, fees and accumulated profit. With limited fund, Finance co-operative probably could not expand their business. Thus, external source is needed to finance their activities. However, as the result shows that Finance industry having lower liquidity, they probably may find difficulties in getting loan from financial institution. This issue highlighted that the Finance co-operatives should put more attention on their liquidity ratio in order to be more competitive among co-operatives.

Even though the result shows that Finance co-operative generates low sales to assets and provide low return on assets and return on equity, but it does not simply translated to low co-operative performance. As mentioned earlier, co-operatives have other objectives rather than to earn profit. The lower activity and profitability performance is probably due to lack of management control or benefits' distribution policy. It is reasonably accepted if the lower performance is due to benefit distribution policy such as lower interest rate. However, action should be taken by co-operatives to improve their activity and profitability performance if the lower performance is due to lack of management control. It probably can be done by employing the skilled management staff, providing training program, increasing internal control and providing proper planning to achieve co-operatives objectives.

Services industry, on the other hand, is running at high liquidity ratios but generate lower sales to assets and provide lower return on equity. The result shows that Service industry has more ability to pay its debt as they come due. However, maintaining higher liquidity but ineffectively managing their assets to generate higher sales shows constraint to the development of co-operatives and in turn limit the benefits distributed to members. Currently, about 30 % of Services type co-operatives limited their activities to just managing funeral activities. Probably, they should involve in non-related activities but the activities would offer substantial business return. As discussed earlier, the lower performance in activity and profitability ratio does not mean that co-operative really running at low performance. The same argument is that probably due to lack of business management or co-operative benefits distribution policy.

Consumer industry is also running at high liquidity ratio but providing lower return on asset. Consumer industry probably has a potential to expand their business through external sources such as getting loans from financial institutions as they are more liquid. However, the result shows that Consumer industry does not perform in profitability. The similar

argument as discussed before in other industries is probably due to lack of business management or co-operative benefits distribution policy.

Consumer (school) has run the business on low liquidity but generating higher sales to assets and providing higher return on equity. The result shows that Consumer (school) is effective in managing their activities and in turn can provide higher return to members. However, they are facing problem in managing their liquidity probably due to lack of inventory control. Co-operative management team should put more attention on inventory management by doing proper planning while purchasing the inventory. It probably can be done by purchasing the related inventory just to supply for short term period instead of long term period.

Plantation depends more on debt to finance the activities, generate low net profit margin and provide higher return on assets. Based on that performance measurement, it shows that plantation industry probably should put more attention in management of resources in order to increase the profit margin. Maintaining profitability is important in providing enough funds to pay interest on loan as this industry probably more prone to bankruptcy risk.

Housing industry is more reliant on debt and generating low sales to assets. The same argument as discussed before in Plantation industry should be applied. Housing industry probably should also put more attention in maintaining profitability in order to avoid the bankruptcy risk. Action should be taken by them to improve their efficiency in generating more sales towards maintaining profitability.

Transport industry is providing low return on assets but the rest of the performance indicator is not significant. The result suggested that, the co-operatives under Transport industry probably should concern about the co-operative management to be competitive among co-operatives. However, the lower performance of return on assets probably due to their profit distribution policy as discussed before.

Focusing on Industrial industry, there is no significant difference in performance measurement.

4.2.2 Non Nonparametric Test (Spearmen's Rho) Based on Size

Table 4
Nonparametric Correlations (Test: Spearmen's rho) Based on Size (represented by total assets / total sales)

Type Of Size		Liquidity: Current Ratio	Liquidity: Quick Ratio	Leverage: Debt/ Asset	Leverage: Debt/ Equity	Activity: Net Sales/ @ Asset Turnover	Profitability: Net Profit Margin	Profitability: Return On Asset	Profitability: Return On Equity
Total Assets	CC	-.334(**)	-.220(**)	.041	.044	.086	-.136(*)	.120(*)	-.209(**)
	Sign	.000	.000	.465	.440	.126	.032	.049	.001
Total Sales	CC	-.365(**)	-.331(**)	.056	.084	.661(**)	-.502(**)	.429(**)	.128(*)
	Sign	.000	.000	.319	.140	.000	.000	.000	.043

Notes: CC (Correlation Coefficient)
Sign (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Table 4 shows the results on non-parametric correlations by size.

a. Liquidity

The correlation is significant at 0.01 levels for current ratio and quick ratio for both size measurements. The negative relationships explain that the bigger size of co-operative having low current and quick ratio. This result is in line with previous research done by Lermant and Parliament 1989 which stated that median liquidity ratio is significantly higher for the small co-operatives than that for the large co-operatives.

The bigger sizes of co-operatives probably have the potential to perform better and bring more benefits to existing members and the communities. It could be done by involving in activities that are more market oriented and of interest to society. Alternative sources of fund would be from external such as financial institution and these would force co-operatives to be efficient in their operations. The lower liquidity experienced by bigger size co-operatives however showed the constraint of the development of co-operatives since they probably may find difficulties in getting loans from external sources to finance their activities. Based on this study, it is suggested that bigger size co-operatives should put

more attention in managing their liquidity such as employing skilled management personnel to manage it.

The findings of this study also highlighted that the size measurement can be represented by either total assets or total sales to test on liquidity since the results are consistent for each of the industry tested.

b. Leverage

The result on debt to asset and debt to equity shows that there is no significant difference between big and small size of the co-operatives. This finding is also in line with previous research done by Lermant and Parliament 1989 that stated median leverage was not found to be significantly different for small and large co-operatives.

The findings of this study also highlighted that the size measurement should be represented by both total assets and total sales to test on leverage since the results are inconsistent for each of the industry tested.

c. Activity

Test on asset turnover performance measurement shows that there is no significant difference for big and small size co-operative based on total assets. Previous research done by Parliament also used total assets to represent the size of the co-operatives, but it found that the median efficiency of assets utilization was significantly higher for large co-operatives. When size is measured by total sales in this current research, the result shows that the correlation is significant at 0.01 levels. It shows that the bigger size of the co-operatives have generated more sales by utilizing their assets.

The findings of this study also highlighted that the size measurement should be represented by both total assets and total sales to test on activity since the results inconsistent for each of the industry tested.

d. Profitability

The findings on test for both net profit margin and return on assets shows that the correlation is significant for the co-operative size measured by total sales. There was negative relationship at 0.01

levels for net profit margin. It shows that the bigger size of the co-operative running their operation at lower net profit margin. The same argument applied to discuss the lower profitability for bigger size co-operatives. The lower or higher profitability might be due to different approach while providing/ distributing the benefits to the members such as giving the benefits to their members based on the level of consumption on the services provided. Alternatively, it is probably due to lack of management of resources.

On the other hand, there were positive relationships at 0.01 levels for return on assets. It explained that the bigger size of the co-operatives is getting higher return on assets.

Overall, it shows that the bigger size of co-operative having lower liquidity for both size measurements. It highlighted that although the bigger size of co-operatives improve their efficiency through economy of scale but have less ability to pay its debt as they come due since they are less liquid. They are also probably finding difficulties in getting loan from financial institution towards expanding their business. The result also shows that although bigger co-operative improves their efficiency through economy of scale, the higher efficiency of assets utilization does not translate into higher profitability. Consumer industry is also running at high liquidity ratio but providing lower return on asset.

The findings of this study also highlighted that the size measurement should be represented by both total assets and total sales to test on profitability since the results are inconsistent for each of the industry tested.

CONCLUSION, LIMITATION AND FUTURE RESEARCH

Overall, this study found that the performance of co-operatives are varies across industries. Finance industry has run the business on low liquidity ratio, less reliance on debt to finance the activities, generating low sales to assets and providing low return on assets and return on equity. Services industries on the other hand are running at high liquidity ratios but generate lower sales to assets and provide lower return on equity. Consumer (school) has run the business on low liquidity but generating higher sales to assets and providing higher return on equity. Plantation is more reliant on debt to finance the activities, generate low net profit margin and provide higher return on assets. Housing industry is more reliant on debt and generating low sales to assets. Transport industry is providing low return on assets but the rest of the performance measurement is not significant. Focusing on Industrial industry, there is no significant difference in performance measurement.

It shows that the co-operatives under related industry should put more attention towards improving their lower performance highlighted in this study. The co-operatives with lower performance probably may find difficulties in getting loan from financial institution then in turn will limit the co-operative to expand their business. Even though the result shows that the related industry provides low performance on activity and profitability but it does not simply translated to low co-operative performance. As mentioned earlier, co-operatives have other objectives rather than to earn profit. The lower activity and profitability performance is probably due to lack of management control or benefits' distribution policy. It is reasonably accepted if the lower performance is due to benefit distribution policy such as lower interest rate. However, action should be taken by co-operatives to improve their activity and profitability performance if the lower performance is due to lack of management control. It probably can be done by employing the skilled management staff, providing training program, increasing internal control and providing proper planning to achieve co-operatives objective.

This research highlighted the significant difference in certain performance measurement among co-operatives based on industry but the reason for variation of performance could not be determined. Future research can be done to investigate the factors that influence the low performance of certain industries focusing on the management control of the co-operative and co-operative distribution policy by different industries to get a better understanding of the strengths and weaknesses for each co-operative industry.

This study used two (2) different size measurements to test significant difference in performance measurement among co-operatives. Overall, it shows that the bigger size of co-operatives have lower liquidity for both size measurements. It highlighted that although the bigger size of co-operatives improve their efficiency through economy of scale but have less ability to pay its debt as they come due since they are less liquid. They are also probably find difficulties in getting loan to finance their activities.

Focusing on other performance measurement, there is no consistent result for different size measurement. Firstly, size is measured by total assets. The results show the bigger size of co-operatives having lower current and quick ratio and providing lower return on equity. There is no significant difference for other performance measurement. When size is measured by total sales, it shows that the bigger size of co-operative having lower current and quick ratio, generating higher assets turnover, generating lower net profit margin but providing higher return on assets. This result shows that although bigger co-operatives improve their efficiency through economy of scale, the higher efficiency of assets utilization does not translate into higher profitability.

The result on test of performance measurement based on size however, still can be argued as the majority of the big size co-operatives in this study consist of finance co-operatives. Further research should be done to test significant difference on performance among different size of co-operatives in different industry.

Since this study only focused on co-operative in Kedah state, further research should also be done throughout Malaysia to get better understanding of co-operative movements.

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